

ABSTRACT

5 The present invention provides a blue colored, infrared and ultraviolet absorbing glass composition having a luminous transmittance of up to 60 percent. This glass composition can form transparent glass panels that have varying limited LTA from one another as panel sets for mounting in automobiles. The glass uses a standard soda-lime-silica glass base composition and additionally iron and cobalt, and optionally selenium and/or titanium, as infrared and ultraviolet radiation absorbing materials and colorants. The glass of the present invention has a color characterized by a dominant wavelength in the range of 480 to 489 nanometers and an excitation purity of at least 8 percent at a thickness of 0.160 inches (4.06 millimeters). In one embodiment of such a blue colored, infrared and ultraviolet radiation absorbing soda-lime-silica glass article includes a solar radiation absorbing and colorant portion having 0.9 to 2.0 percent by weight total iron, 0.15 to 0.65 percent by weight FeO, 90 to 250 PPM CoO, and optionally up to 12 PPM Se and up to 0.9 wt% TiO₂, and preferably 1 to 1.4 percent by weight total iron, 0.20 to 0.50 percent by weight FeO, 100 to 150 PPM CoO, up to 8 PPM Se, and up to 0.5 wt% TiO₂.